

Bulletin #4

This issue was released on August 1, 1997.

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Department of Conservation Releases New Preliminary Seismic Hazard Zone Maps

On August 1, 1997, the California Department of Conservation released five new preliminary seismic hazard zone maps covering parts of Los Angeles and Ventura counties. Five additional maps and two revisions are planned for release in October (see chart below and map on page 2).

Cities covered by the August 1 release include all or portions of Calabasas, Agoura Hills, Hidden Hills, Los Angeles and Santa Clarita. Each of the five maps covers approximately 60 square miles at a scale of one inch equals 2,000 feet.

The maps are being distributed to local officials for technical review as part of the state's seismic hazard mapping program mandated by the Seismic Hazard Mapping Act of 1990. The first set of maps, which included 19 communities in portions of Los Angeles, Orange and Ventura counties, were released in final form in April 1997.

The maps show areas which, during an earthquake, have an increased susceptibility to landslides or to water-saturated ground failure known as liquefaction. Much of the mapped area is underlain by saturated sands and silts that may liquefy during intense ground shaking, or are steep slopes composed of weak materials, where earthquakes are likely to trigger slope failure.

Following a six-month technical review period, the maps will be released as official seismic hazard zone maps by February 1, 1998. The official maps will then be used by local officials to identify areas for required site-specific investigation before permitting new urban development.

The State Mining and Geology Board adopted [Guidelines for Evaluating and Mitigating Seismic Hazards in California \(Special Publication 117\)](#) for local governments to use in evaluating seismic hazards and to propose siting and construction techniques within the identified hazard zones.

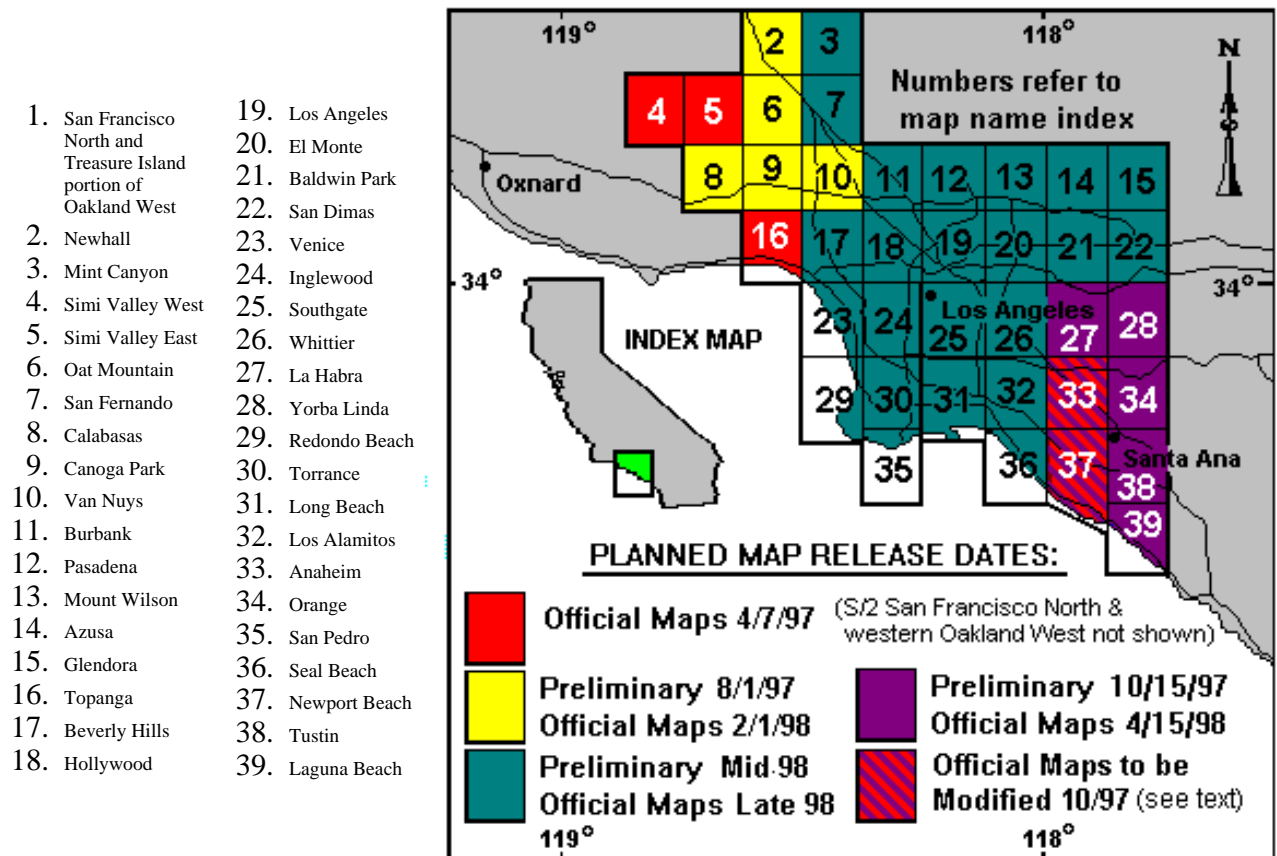
Subsequent preliminary maps for the three-county area affected by the Northridge earthquake will be distributed for review approximately every six months until the currently funded total of 38 maps are produced (see map).

Local governments and other interested parties now have until November 1, 1997 to review and comment on the maps. Comments from interested parties or organizations must be submitted to the State Mining and Geology Board by that date. The Board's address is:

801 K Street, Room 24-05
Sacramento, CA 95814

Cities/Counties Affected by Released Seismic Hazard Zone Maps		
April 1997 Official Maps	August 1997 Preliminary Maps	October 1997 Preliminary Maps
Anaheim Buena Park Costa Mesa Cypress Fountain Valley Fullerton Garden Grove Huntington Beach Los Angeles Malibu Moorpark Newport Beach Orange Placentia San Francisco Santa Ana Santa Monica Simi Valley Stanton Westminster Orange County Los Angeles County Ventura County	Agoura Hills Calabasas Hidden Hills Los Angeles Santa Clarita Simi Valley Los Angeles County Ventura County	Anaheim Brea Buena Park Costa Mesa Fullerton Industry Irvine Laguna Beach La Habra La Habra Heights La Mirada Los Angeles Newport Beach Orange Placentia Santa Ana Tustin Whittier Yorba Linda Orange County Los Angeles County

Note: The image below is as it appeared in Bulletin #4.
[A more up-to-date schedule is available.](#)



Southland Panel to Consider Seismic Review Standards

Concern about selecting appropriate analysis guidelines and mitigation measures to implement the Seismic Hazard Mapping Act has led Southern California agencies to seek jointly proposed review standards for liquefaction and slope stability.

The committee, still in its formative stages, will be co-chaired by Dr. Geoffrey Martin, professor of civil engineering at the University of Southern California, and Dr. Marshall Lew, vice-president of Law/Crandall, a geotechnical consulting firm in Los Angeles.

According to Dr. Martin, representatives from the City of Los Angeles and the counties of Orange, Ventura, Los Angeles, Riverside, San Bernardino and San Diego have agreed to participate.

The state's regulatory requirement to investigate liquefaction and slope stability prior to construction of a structure for human occupancy raises the question of acceptable level of risk for permitting agencies. The committee will recommend levels of acceptable risk (expressed, for example, in terms of acceptable levels of ground deformation) and recommend appropriate methods of mitigation based on current engineering practices.

Dr. Martin says the committee will begin meeting monthly as soon as all committee members and contacts are confirmed. He expects the committee to produce a mutually acceptable document by the end of 1997.

Charles Real, manager of the Department of Conservation's seismic hazard mapping program, will participate as an advisor.

Digital Seismic Hazard Maps Available

The zone data layers on the six official seismic hazard zone maps which were made official in April 1997 are now available in digital form from the Department of Conservation. These maps include the San Francisco North, Anaheim, Newport Beach, Simi East, Simi West, and Topanga quadrangles.

The available data formats include DXF and Intergraph Design File (DGN). Many GIS programs can import DXF data. These files may be obtained via the Internet from <ftp://ftp.consrv.ca.gov/pub/dmg/shezp/zonemaps/>. They are also available by linking to the [Department of Conservation Web site \(http://www.consrv.ca.gov/\)](http://www.consrv.ca.gov/).

Cities and counties that do not have Internet access may obtain the files on a floppy disk. Contact Ted Smith at (916) 323-8569.

Seismic Trivia

Hundreds of earthquakes occur each day in California. Most are less than magnitude 3—too small to be felt by humans. They are detected and recorded by a seismograph network operated by state and federal agencies. California is the second most seismically active state, following Alaska. Other states with large numbers of earthquakes are Hawaii, Nevada, Utah, and Idaho.

To Order Seismic Hazard Zone Maps

Seismic hazard zone maps for liquefaction and/or landslide potential are available from:

BPS Reprographic Services
149 Second Street
San Francisco, CA 94103
(415) 512-6550

Contact BPS for price information.

To Order Guidelines

A printed version of Division of Mines and Geology Special Report 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California, adopted by the State Mining and Geology Board, is available for \$15 per copy, including tax and postage. Checks, money orders, and VISA and MasterCard are accepted. Pick up or order from the Division of Mines and Geology offices at:

Southern California Regional Office
107 S. Broadway, Room 1065
Los Angeles, CA 90012-4402
(213) 620-3560

Publications and Information Office
801 K Street, Room 1400
Sacramento, CA 95814-3532
(916) 445-5716

Bay Area Regional Office
185 Berry Street, Room 210
San Francisco, CA 94107-1728
(415) 904-7707

Send mail orders to:
P.O. 2980
Sacramento, CA 95812-2980

[The guidelines are also available on the world-wide web at
<http://www.consrv.ca.gov/dmg/pubs/sp/117/index.htm>.]

Just the FAQs

Frequently asked questions about earthquake hazards, the Seismic Hazard Mapping Act and the Seismic Hazard Zone Maps.

Q. Is the city or county responsible for the technical expertise to review geotechnical reports for their adequacy and to determine mitigation?

A. Yes. A city or county may use either a certified engineering geologist, registered civil engineer, or both with competence in the field of seismic hazard evaluation and mitigation to review site-investigation reports for adequacy. The reviewer may be either on staff or a retained consultant.

Q. Page 7(c) of the Guidelines states that the lead agency is required to review the geotechnical reports to determine the adequacy of geotechnical reports and mitigation measures. Who bears the cost of the reviews?

A. Local governments are responsible for reviewing the geo-technical reports to ensure their adequacy as defined by California Code of Regulations, Section 3724(c). Most local governments pass these costs on to the applicant as part of permit fees.

Q. Acceptable levels for protection of public safety is a term that may not be consistent throughout the state. Would each project be left to interpretation?

A: The state's definition of "acceptable level" is the minimum level at which ground failure is not expected to cause loss of life. Cities and counties may be more restrictive. It is up to each jurisdiction to define the term and apply it in its approval process.

Q. The city or county must send a copy of the site-investigation report to the state within 30 days after its acceptance. Why do these documents need to be filed with the state? Is state approval of a report required before issuance of permits?

A. The state has no authority to approve or reject the report. The reports are collected by DMG for the data they contain. The information becomes part of DMG's database to improve and update the maps in the future.

Q. Does the state collect any payments with the submittal of the site-investigation reports?

A. There are no new fees. The Department of Conservation already receives a portion of permit fees collected by local governments.

Q. Do all mitigation measures need to be completed by finals of construction on new projects?

A. The city is responsible for verifying any mitigating measures it requires.

Q. When a property located in a "zone of required investigation," is sold, is the owner required to disclose this fact to potential buyers?

A. Yes. The disclosure requirement applies regardless of the findings of the site-investigation or mitigation measures that have been taken.

Q. Should the requirements of the Seismic Hazard Mapping Act be adopted into the city's municipal code?

A. The Act leaves the mechanism for implementing its requirements to the discretion of local governments. Some cities will choose to adopt an ordinance; others will make the requirements part of their permit review process without an ordinance. The only other requirement in the Act is that local governments consider the map information when revising their general plans.

For More Information...

The **Department of Conservation's Division of Mines and Geology** posts information pertaining to the Seismic Hazard Mapping Program at the Department of Conservation's Web site:

<http://www.consrv.ca.gov/>. For information about outreach services available to local governments, contact:

Bea McKamey, Outreach Specialist
Voice: (916) 324-1407
Fax: (916) 445-3334
E-mail: bmckamey@consrv.ca.gov

For assistance with guideline and/or map interpretation, questions or comments about the home page, or availability of data and data services, contact:

Ted Smith, Outreach Coordinator
Voice: (916) 323-8569
Fax: (916) 445-3334
E-mail: tsmith@consrv.ca.gov